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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/450,054	11/29/1999	ASHOK V. KRISHNAMOORTHY	32	7078

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EXAMINER

JACKSON, CORNELIUS H

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/450,054

Applicant(s)

KRISHNAMOORTHY, ASHOK V.

Examiner

Cornelius H. Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.


- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Acknowledgment

1. Acknowledgment is made that applicant's Amendment, filed on 15 September 2003, has been entered. Upon entrance of the Amendment, claims 1, 7, 10 and 11 were amended. Claims 1-11 are now pending in this case.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite since it is unclear how each level (after the first) comprises a common point to extend from and also extend from the extremities of the previous order lower level.

5. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite since it is unclear what makes up the next order higher level and the previous order lower level.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2, 4-5 and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Koh et al. (5416861). Koh et al. disclose a network **Fig. 1** for distributing a power signal in an optoelectronic circuit **20** comprising a plurality of electrically conductive pathways, **see col. 3, line 3-col. 4, line 14** forming at least a first level, wherein each level is comprised of a plurality of segments **24** linearly extending from a common point, each of the segments of respective levels having equal lengths, and wherein the segments of a next order higher level are formed at the extremities of a previous order lower level; means for coupling **16, 18 and 22** the power signal from a primary input to a point at the center of the first level; terminal nodes **26** coupled at the extremities of a last level for supplying the power signal to a plurality of devices that form at least a portion of said optoelectronic circuit **20**, wherein the number of segments connecting said primary input to each of said terminal nodes is equal such that the power supplied by the terminal nodes to each of the plurality of devices is substantially equal.

Regarding claims 2, Koh et al. disclose all stated limitations, **s Figs. 1-2.**

Regarding claim 4, Koh et al. disclose a network on an optoelectronic chip, **see col. 1, lines 48-54 and col. 26, lines 13-14.**

Regarding claim 5, Koh et al. disclose the terminal nodes are optoelectronic devices, **see claim 18.**

Regarding claims 10-11, it is inherent that the device claimed operates on using method claimed, therefore the rejection of the device applies also for the method.
(Also, see col. 10, lines 31-56.)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koh et al. (5416861) in view of Watanabe (5309001). Kohl et al., as applied to claims 1 and 2 above, teach all of the stated limitations except for that the pattern of the level is X-shaped. Watanabe et al. teach the levels form an X-shaped pattern, **see Figs. 5, 10, 16 and 18a.** Since it has been held to be within the general skill of a worker in the art to select a known design on the basis of its suitability for the intended use as a matter of obvious design choice. Also, it would have been an obvious matter of design choice to change the shape of the pattern used to equally distribute the power signal,

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since applicant has not disclosed that pattern shape solves any stated problem or is for any particular purpose and it appears that the prior art would perform equally well with the H-shaped pattern.

Regarding claim 6, Watanabe et al. teach the terminal node maybe a VCSEL. Also, it is well known that VCSELs are a form of integrated circuits, therefore it would only be a matter of design choice. Since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding claims 7 and 9, see claims 1 and 3 above.

Regarding claim 8, see claims 1-3 above.

Response to Arguments

10. Applicant's arguments filed 13 February 2002 have been fully considered but they are not persuasive. Applicant argued the following:

a. "Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" and Koh discloses an optical waveguide H-tree design, instead of an electrically conductive pathway.

b. Koh discloses an H-tree configuration for equidistant clock distribution, not power distribution.

In response to Applicant arguments:

a. Koh does teach each and every element of the claimed invention, arranged as in the claim, since Koh teaches that the optical pathways maybe superconductor pathways, **see col. 1, line 67** and Koh also teaches the electrical H-tree clock distribution to be well known, **see col. 3, lines 3-7**.

b. Both electrical and optical signals are power signals. Also, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

11. Applicant's arguments with respect to claims 1-11, filed 15 September 2003, have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cornelius H. Jackson whose telephone number is (703) 306-5981. The examiner can normally be reached on 8:00 - 5:00, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone number for the organization where this application or proceeding is assigned is (703)308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



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